



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,548	04/12/2004	Marc Seghatol	1550.36US03	1792

7590 08/23/2006

Brad Pedersen  
Patterson, Thunte, Skaar & Christensen, P.A.  
4800 IDS Center  
80 South 8th Street  
Minneapolis, MN 55402-2100

EXAMINER

BUTLER, PATRICK

ART UNIT	PAPER NUMBER
----------	--------------

1732

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/822,548	SEGHATOL ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Patrick Butler	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1, 33, 37 and 39-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 33, 37, and 39-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION*****Response to Amendment***

The Applicant's Amendments, filed 02 June 2006, and Accompanying Remarks, filed 21 February 2006 and 02 June 2006, have been entered and have been carefully considered. No Claims are new, Claims 1, 33, and 37 are amended, Claims 2-14, 17, 30-32, 34-36, and 38 canceled, and Claims 1, 33, 37, and 39-41 are pending.

Although Applicant argues that Claim 37 is pending, cancelled, and amended, the listing of claims is relied upon instead to show that Claim 37 is pending, amended, but not cancelled. Appropriate cancellation of Claim 37 would require the proper status identifier of "(cancelled)", which Claim 37 does not have.

Although Applicant implies that Claim 39 is not pending, not cancelled, and not amended, the listing of claims is relied upon instead to show that Claim 39 is pending and not cancelled.

Although Applicant argues that Claim 41 is cancelled, the listing of claims is relied upon instead to show that Claim 41 is pending and not cancelled. Appropriate cancellation of Claim 41 would require the proper status identifier of "(cancelled)", which Claim 41 does not have.

In view of Applicant's amendment to the specification to update related application statuses, the Examiner withdraws the previously set forth priority objections as detailed in the Priority section of the Office Action dated 19 September 2005.

Art Unit: 1732

In view of Applicant's amendment of title, the Examiner withdraws the previously set forth specification objection as detailed in the Specification section of the Office Action dated 19 September 2005.

In view of Applicant's canceling of Claims 5, 13, 31, 34, and 38, the Examiner withdraws the previously set forth claim objections as detailed in the Claim Objections section of the Office Action dated 19 September 2005.

In view of Applicant's canceling of Claim 17, the Examiner withdraws the previously set forth claim rejections as detailed in the Claim Rejections – 35 USC 112 section of the Office Action dated 19 September 2005.

In view of Applicant's canceling of Claim 17, the Examiner withdraws the previously set forth claim rejections as detailed in the Claim Rejections – 35 USC 112 section of the Office Action dated 19 September 2005.

In view of Applicant's canceling of Claim 17, the Examiner withdraws the previously set forth claim rejections as detailed in the Claim Rejections – 35 USC 101 and 112 section of the Office Action dated 19 September 2005.

In view of Applicant's canceling of Claims 12 and 30, the Examiner withdraws the previously set forth-double patenting objection advisory rejections as detailed in the Double Patenting section of the Office Action dated 19 September 2005.

Despite these advances, the invention as currently claimed is not found to be patentable for reasons herein below.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 1732

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 41 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 41 recites the limitation "said filler" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b):

Claims 1, 3, 37, 39, and 40 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 5 of U.S. Patent No. 6,737,619 B2 in view of Gonser (US Patent No. 3,868,513).

Art Unit: 1732

With respect to Claims 1, 33, and 37, Claim 5 of U.S. Patent No. 6,737,619 B2 teaches forming dental composites (part of a tooth; a hardened object; orthodontic element) from a resin matrix (curable polymer composition) and using a microwave energy source to polymerize the matrix (using a microwave source to apply microwave energy to harden said hardenable object).

Claim 5 of U.S. Patent No. 6,737,619 B2 does not teach a hand-held microwave source being employed in the method.

Gonser teaches using a hand-held energy source in-mouth to cure a resin (col. 1, line 8-20).

It would be obvious to combine Gonser's method of using a hand-held energy source with the method of forming as taught by Claim 5 of U.S. Patent No. 6,737,619 B2 in order to expedite the process by easily doing the work at the tooth.

With respect to Claim 39, Claim 5 of U.S. Patent No. 6,737,619 B2 teaches forming dental prosthetics (dental prosthesis).

With respect to Claim 40, Claim 5 of U.S. Patent No. 6,737,619 B2 teaches forming dental composites of resin (composite resin filling).

Claims 1, 33, 37, 39, and 40 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 10 of U.S. Patent No. 6,254,389 B1.

With respect to Claims 1, 33, and 37, Claim 10 of U.S. Patent No. 6,254,389 B1 teaches forming polymerized resin on a tooth (part of a tooth; a hardened object; orthodontic element) from a resin matrix (curable polymer

Art Unit: 1732

composition) and using a hand-held microwave energy source to polymerize the resin matrix (using a microwave source to apply microwave energy to harden said hardenable object).

With respect to Claim 39, 10 of U.S. Patent No. 6,254,389 B1 teaches forming polymerized resin on a tooth (dental prosthesis).

With respect to Claim 40, Claim 10 of U.S. Patent No. 6,254,389 B1 teaches forming polymerized resin on a tooth (composite resin filling).

Claim 41 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 5 of U.S. Patent No. 6,737,619 B2 in view of Gonser (US Patent No. 3,868,513) as applied to Claim 37, and further in view of Podszun (US Patent No. 5,147,903).

With respect to Claim 41, Podszun teaches using polymeric methacrylates to make or fill teeth (see col. 1, lines 8-20) and that the filler is methacrylates (see abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Podszun's filler in the method of forming as taught by Claim 5 of U.S. Patent No. 6,737,619 B2 because Podszun teaches that methacrylates are useful in making teeth, and due to safety concerns, such as leaching of hazardous, uncured resins, it would be obvious to use familiar polymers and fillers of the dental field.

Claim 41 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claim 10 of U.S. Patent No.

Art Unit: 1732

6,254,389 B1 as applied to Claim 37, and further in view of Podszun (US Patent No. 5,147,903).

With respect to Claim 41, Podszun teaches using polymeric methacrylates to make or fill teeth (see col. 1, lines 8-20) and that the filler is methacrylates (see abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Podszun's filler in the method of forming as taught by Claim 10 of U.S. Patent No. 6,254,389 B1 because Podszun teaches that methacrylates are useful in making teeth, and due to safety concerns, such as leaching of hazardous, uncured resins, it would be obvious to use familiar polymers and fillers of the dental field.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 33, 37, 39, 40, and 41 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Stangel et al (US Patent No. 6,605,051 B1).

Stangel teaches Claim 1 (See Stangel, Claim 1: preamble, (i), (i)(a), and (ii)).



Art Unit: 1732

Stangel teaches Claims 33 (See Stangel, Claim 3: preamble, (i), and (ii)).

Stangel teaches Claims 37 (See Stangel, Claim 4: preamble, (i), and (ii); and Claims 12 and 13).

Stangel teaches Claim 39 (See Stangel, Claim 12).

Stangel teaches Claim 40 (See Stangel, Claim 13).

Stangel teaches Claim 41 (See Stangel, Claim 14).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 33, 37, and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Podszun (US Patent No. 5,147,903) in view of Gonser (US Patent No. 3,868,513) and Lee (US Patent No. 4,011,197).

With respect to Claims 1, 33, and 37, Podszun teaches using polymeric methacrylates to make or fill teeth (see col. 1, lines 8-20).

Podszun does not appear to expressly teach curing by hand-held microwave.

Gonser teaches using a hand-held energy source in-mouth to cure a resin (col. 1, line 8-20).

Art Unit: 1732

It would be obvious to combine Gonser's method of using a hand-held energy source with the method of using a resin to make or fill teeth as taught by Podszun in order to expedite the process by easily doing the work at the tooth.

Podszun in view of Gonser does not appear to expressly teach curing by microwave.

Lee teaches that various methods of delivering curing energy are microwave and light (UV) (see col. 1, lines 10-15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Lee's microwave energy in place of UV energy in the method as taught by Podszun in view of Gonser because the use of various energies for curing are well known (see col. 1, lines 10-15) and because it would make a better bond with the original tooth and because it would make a better, faster bond with the original tooth.

With respect to Claims 39-40, Podszun teaches using the material for making or filling teeth (dental prosthesis) (see Col. 1, lines 7-10).

With respect to Claim 41, Podszun teaches that the filler is methacrylates (see abstract), which is organic.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1732


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

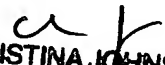
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick Butler whose telephone number is (571) 272-8517. The examiner can normally be reached on Mo.-Th. 7:30 a.m. - 5 p.m. and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1732

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Patrick Butler  
Assistant Examiner  
Art Unit 1732

  
CHRISTINA JOHNSON  
PRIMARY EXAMINER  
8/21/04